

Metaxin 1 (28): sc-135989

BACKGROUND

Metaxin 1, also known as Mtx or Gcap6, is a 317 amino acid member of the Metaxin protein family. Localized to the mitochondrion outer membrane, Metaxin 1 is involved in the transport of proteins into the mitochondrion. Metaxin 1 is also believed to be essential for embryonic development. Metaxin 1 has been found to interact with other Metaxin family members, including Metaxin 2. Although ubiquitously expressed, highest levels of Metaxin 1 are present in kidney. The gene that encodes Metaxin 1 maps to human chromosome 1, which is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome.

REFERENCES

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- Collins, M., et al. 1996. SP1-binding elements, within the common Metaxin-thrombospondin 3 intergenic region, participate in the regulation of the Metaxin gene. *Nucleic Acids Res.* 24: 3661-3669.
- Armstrong, L.C., et al. 1997. Metaxin is a component of a preprotein import complex in the outer membrane of the mammalian mitochondrion. *J. Biol. Chem.* 272: 6510-6518.
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- Da Cruz, S., et al. 2003. Proteomic analysis of the mouse liver mitochondrial inner membrane. *J. Biol. Chem.* 278: 41566-41571.
- Zambrowicz, B.P., et al. 2003. Wnk1 kinase deficiency lowers blood pressure in mice: a gene-trap screen to identify potential targets for therapeutic intervention. *Proc. Natl. Acad. Sci. USA* 100: 14109-14114.
- Karim, S.A., et al. 2004. A physical map of the genomic region on mouse chromosome 3 containing the hindshaker (hsh) mutation. *Genomics* 83: 225-230.
- Pagliarini, D.J., et al. 2008. A mitochondrial protein compendium elucidates complex I disease biology. *Cell* 134: 112-123.
- Sansom, S.N., et al. 2009. The level of the transcription factor Pax-6 is essential for controlling the balance between neural stem cell self-renewal and neurogenesis. *PLoS Genet.* 5: e1000511.

CHROMOSOMAL LOCATION

Genetic locus: Mtx1 (mouse) mapping to 3 F1.

SOURCE

Metaxin 1 (28) is a mouse monoclonal antibody raised against amino acids 66-185 of Metaxin 1 of mouse origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

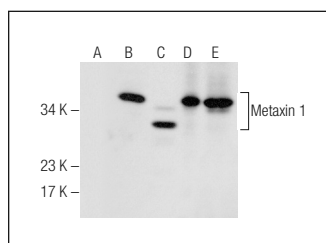
Metaxin 1 (28) is recommended for detection of Metaxin 1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Metaxin 1 siRNA (m): sc-149375, Metaxin 1 shRNA Plasmid (m): sc-149375-SH and Metaxin 1 shRNA (m) Lentiviral Particles: sc-149375-V.

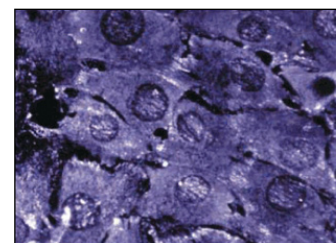
Molecular Weight of Metaxin 1: 35 kDa.

Positive Controls: Metaxin 1 (m): 293T Lysate: sc-121612, mouse kidney extract: sc-2255 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Metaxin 1 (28): sc-135989. Western blot analysis of Metaxin 1 expression in non-transfected 293T: sc-117752 (A), mouse Metaxin 1 transfected 293T: sc-121612 (B) and NIH/3T3 (C) whole cell lysates and mouse embryo (D) and mouse kidney (E) tissue extracts.



Metaxin 1 (28): sc-135989. Immunofluorescence staining of NIH/3T3 cells showing nuclear and cytoplasmic localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.